Running head: ANALYSIS OF THE SPECIAL CARE UNIT

U.S. Army-Baylor University

Graduate Program in Healthcare Administration

A Business Case Analysis of the Special Care Unit at Moncrief Army Community Hospital Fort Jackson, South Carolina

A Graduate Management Project Submitted to The Residency Committee In Candidacy for the Degree of Masters in Health Care Administration

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14. ABSTRACT
The goal of this project is to develop and evaluate four courses of action (COA) inorder to determine the most efficient and effective method to care for Moncrief Army Community Hospitals Special Care Unit (SCU) inpatients. A common hypothesis shared by the author and many others at Moncrief was that the SCU was inefficient and much costlier than closing it and receiving the SCU care from the TRICARE network hospitals. This project, by analyzing the following options: COA 1- Close the SCU and Transport Future Inpatients to the UCC and Local Hospitals, COA 2- Close the SCU and Integrate Future Inpatients into the Medical Surgical Ward, COA 3- Close the SCU and Transport Future Inpatients to the Dorn VA Medical Center, and COA 4- Maintain the SCU in its Current Configuration, will help determine how Moncriefs SCU patients are seen in the future. A thorough analysis of the data strongly suggests that the hypothesis of this study should be rejected. Maintaining the SCU in its current configuration costs $338,964, versus closing it and receiving the care from TRICARE network hospitals at a cost of $479,471. This $140,507 difference equates to a very significant government cost savings.

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Abstract

The goal of this project is to develop and evaluate four courses of action (COA) in order to determine the most efficient and effective method to care for Moncrief Army Community Hospital's Special Care Unit (SCU) inpatients. A common hypothesis shared by the author and many others at Moncrief was that the SCU was inefficient and much costlier than closing it and receiving the SCU care from the TRICARE network hospitals. This project, by analyzing the following options: COA 1- Close the SCU and Transport Future Inpatients to the UCC and Local Hospitals, COA 2- Close the SCU and Integrate Future Inpatients into the Medical Surgical Ward, COA 3- Close the SCU and Transport Future Inpatients to the Dorn VA Medical Center, and COA 4- Maintain the SCU in its Current Configuration, will help determine how Moncrief's SCU patients are seen in the future. A thorough analysis of the data strongly suggests that the hypothesis of this study should be rejected. Maintaining the SCU in its current configuration costs $338,964, versus closing it and receiving the care from TRICARE network hospitals at a cost of $479,471. This $140,507 difference equates to a very significant government cost savings.

Table of Contents

List of Tables

List of Figures

A Business Case Analysis of the Special Care Unit at Moncrief Army Community Hospital

Moncrief Army Community Hospital is a 12-story Department of Defense (DOD) Medical Treatment Facility located on Fort Jackson, South Carolina. Its mission is to fully support Fort Jackson by maximizing access to quality healthcare and maintaining contingency preparedness of the healthcare system (Moncrief Balanced Scorecard, 2001). Specifically, Moncrief falls in the Southeast Regional Medical Command and TRICARE Region 3 of the TRICARE network (Appendix B). It provides care to approximately 33,000 TRICARE Prime enrolled beneficiaries, comprised of permanent party soldiers, active duty family members, retirees and their family members, and a transient active duty population of soldiers in training (CRIS, 2001). Moncrief provides space available services and extensive pharmaceutical services to approximately 30,000 other, mainly retired, eligible beneficiaries. A recent change, authorized by the FY 2001 National Defense Authorization Act was the primary care enrollment of just over seven hundred TRICARE Plus beneficiaries into the Moncrief Internal Medicine clinic.

Fort Jackson's transient population is comprised of soldiers temporarily assigned to Fort Jackson for Basic Combat Training (BCT), Advanced Individual Training (AIT), and officer and enlisted service schools. Medical care not provided at Moncrief, or available within the TRICARE Access To Care time standards, is provided by the TRICARE Region 3 Managed Care Support Contract (MCSC) network providers or the Dwight D. Eisenhower Medical Center (DDEAMC). DDEAMC is the TRICARE Region 3 medical center and a regional referral center. Humana Military Healthcare Services is the TRICARE contractor for Moncrief and Regions 2, 3, 4 and 5. Also located in the Fort Jackson vicinity is the Palmetto Government

Benefits Administrators (PGBA), which processes supplemental Active Duty claims for Regions 2, 3, 4 and 5 and TRICARE For Life (TFL) claims for all TRICARE regions (E.J. Braswell, personal communication, March 12, 2002).

Moncrief, which opened in 1972, has seen many changes throughout the past three decades. The $12 million facility was originally predicted to have "an average of 375 beds occupied, 51 admissions, 8 surgical procedures, 1500 clinic visits, 1670 prescriptions filled, and 1170 meals served for approximately 75,000 beneficiaries" (Henderson, 1992, p. 49). In the 1970s, Moncrief had staffing problems, with some areas overstaffed while others were understaffed. The issue was so prevalent the Fort Jackson newspaper, The Leader, on October 16, 1970, published the following article, "New Hospital Worthless Unless Staffed Inside" (Henderson, 1992, p. 49).

Currently Moncrief experiences some of the same staffing problems as civilian hospitals, specifically, there is a serious nursing shortage. Moncrief's nursing shortages though are a reflection of the Army Medical Department optimization, the 91W transition, and limited civilian personnel funding. These nursing shortages are having an adverse impact on staff morale, and could ultimately impact patient care, if nurses continue to work long duty hours and also pull call without receiving time off. In FY 2000, Moncrief daily averages were 19 beds occupied, 4 admissions, 1363 clinic visits, and 1,831 prescriptions filled per day, for approximately 60,500 beneficiaries (Moncrief Command Brief, 2001). Some clinics and departments operate extremely efficiently, while others do not. In the 1990's, several services were closed after they were determined not to be cost effective and unable to maintain skills, due to low utilization (P. Prather, personal communication, June 6, 2002). These services included Obstetrics, Intensive Care, and Emergency Care.

A 4 bed Special Care Unit (SCU), collocated on the 12th floor with a Post Anesthesia Care Unit (PACU) and Same Day Surgery (SDS), provides Moncrief's intermediate care. The SCU, PACU, and SDS are authorized sixteen personnel and are currently staffed with two 66H8As (Army Intensive Care Nurse), six 91Cs (Practical Nurse), and three Registered Nurses (RN). The SCU was formed in 1997 after extensive analysis and planning by the Intensive Care Unit Restructuring Task Force. The Moncrief SCU is staffed by three full-time equivalent (FTEs). The two 66H8As split their time between the PACU and SCU. The SCU had an average inpatient monthly census of 24.9 in FY 1998, 15.3 in FY 1999, and 10.75 in FY 2000, compared to 7.4 during Fiscal Year (FY) 2001, when the SCU actually closed for almost four months due to staff shortages (SCU Inpatient Log, 2001).

According to the scope of services of the Moncrief Special Care Unit standard operating procedure (SOP),

> The patients served on this unit include but are not limited to surgical patients requiring continuous monitoring and/or epidural for pain control, medical cardiac patients with diagnosis of MI or rule out MI, medical patients requiring hemodynamic monitoring and/or mechanical ventilation, pediatric patients of all ages requiring continuous monitoring, and patients with various metabolic and electrolyte diseases or illnesses requiring continuous monitoring.

Currently the SCU scope of service is just for stabilization for medical patients requiring hemodynamic monitoring and/or mechanical ventilation, pediatric patients of all ages requiring continuous monitoring (P. Prather, personal communication, June 6, 2002).

The conditions that prompted this study are primarily financial, but also involve staff constraints and training. Financially, the estimated Moncrief medical baseline Defense Health Program (DHP) budget for FY 2002 of $45 million is an increase of 7.8% over the FY 2001 budget of $40.6 million (R. Corley, personal communication, February 5, 2002). The Army

Medical Department (AMEDD) Optimization plan was mostly responsible for the decrease in Moncrief nursing staff from 264 in October of 2000 to 243 in July of 2001, with the inpatient staff and military nursing especially hard hit (P. Prather, personal communication, August 27, 2001). As the number of nurses has decreased, efforts have been made to maximize the productivity of remaining staff members. Evaluation of workload is one way to determine the productivity of different work centers. As previously described, the SCU workload has been decreasing steadily since 1998, and there were several closures, partially due to the reengineering of the Emergency Room into an Urgent Care Clinic and the reduction of the served Medicare eligible population.

In 1998, the Clinical Nursing Service (CNS) Re-Engineering Task Force studied moving the monitored care from the Special Care Unit to the Medical – Surgical Unit on the 8th floor (Minutes of CNS Re-Engineering Task Force, 1998). This initiative was not pursued supposedly due to lack of support from some of the medical staff. In August 2000, the issue was raised again by the new Deputy Commander for Nursing (DCN), but once again was not pursued due to lack of support and the need for monitored beds.

In June of 2001, the DCN, COL Prather, signed a memorandum authorizing an operating hours change for the Special Care Unit. The first sentence of this paragraph stated, “Due to the permanent loss of nursing personnel and the low utilization rate of the Special Care Unit on weekends, the Special Care Unit will close on Friday afternoons at 1600 and reopen on Monday mornings at 0700 effective Friday, 29 June 2001” (Prather, 2001). The SCU does not close until all patients are discharged or transferred, and an on-call staff member supports those requiring emergency surgery on weekends.

Statement of the Problem

The Moncrief Special Care Unit (SCU) structure within the Special Care Unit, based on previous workload, appears financially inefficient. Some SCU staff members are often shifted among the Medical Surgical Ward (MSW), Psychiatric ward, and the Urgent Care Clinic (UCC). They also provide PACU support, on-call coverage, and make post-operation callbacks.

Literature Review

Numerous articles are available to help answer the research question for this project. Unlike many other industries, the healthcare industry has a direct impact on its customers. How well a hospital performs can be the difference between life and death. This does not mean that hospitals have unlimited financial or personnel resources. Many hospitals today face severe financial constraints and critical personnel shortages. Some strategies hospitals pursue to counteract these problems are optimization and reengineering. Instead of a complete overhaul, hospitals can often decide to close or streamline specific services. One trend in the hospital industry is a shift from inpatient care to outpatient care, and outsourcing services if it is financially advantageous.

To ensure that decisions are not made haphazardly and patients' services do not suffer, hospitals must align their missions with certain areas. To do this, Robert Kaplan and David Norton developed the balanced scorecard (BSC) used by many Fortune 500 companies and numerous other organizations to turn their companies around (Mellones, 2000). The literature describes a balanced scorecard based on four equal quadrants, which was used successfully by Duke Children's Hospital (DCH) to turn around their organization (Mellones, 2000). DCH's four quadrants, which can vary by organization, are: "financial health, customer satisfaction, internal business procedures, and employee satisfaction" (Mellones, 2000, p. 6). According to

Mellones (2000), prior to the BSC DCH was operating at an $11 million loss. Just three years after introducing the BSC, DCH had an operating profit of $4 million while increasing the quality of care.

Reengineering, which involves changing the way an organization provides goods or services, varies by the degree of change and is most often done for financial reasons. Without a well thought out process using tools such as a BSC, reengineering can actually have a negative impact on a company's financial position. Walston (2000) found that reengineering initiatives were more likely to improve acute care hospitals if they included committees, teams, and executive involvement. He suggested that methods used to change might be as crucial as the actual change (Walston, 2000).

According to Serb (1998), hospital reengineering was popular in the early 1990s and peaked in 1995 with 144 hospitals starting reengineering projects compared to just 46 in 1992. One of the negative impacts of reengineering is on employees since many times it leads to layoffs and department closings (Serb, 1998). In order for reengineering to be successful, all employees need to be involved and open to future changes. In the changed organization, remaining employees take on new roles and more responsibility to foster improvement (Jaffe & Scott, 1997). This can be referred to cynically as doing more with less.

Two approaches to reducing work forces described by Murphy and Murphy (1996) are an across the organization reduction and a work process. Across the board reductions are least preferred because they don't determine which sections really are overstaffed and which are not. This approach is more likely to lead to adverse outcomes and morale problems. On the other hand, analyzing processes and reducing unnecessary positions results in labor cost reductions, higher quality healthcare, and higher patient satisfaction (Murphy & Murphy, 1996).

As a critical quadrant of the BSC, the financial section is one of the more difficult to analyze correctly. Hospitals with excess inpatient capacity are ripe for reengineering. Two options for hospitals are to close down inpatient beds or attempt to increase demand by reducing prices. To decide which option to pursue Sopariwala suggests "practical capacity cost accounting" instead of using the expected number of inpatient bed days (Sopariwala, 1997, p.54). This technique leads to more predictable fixed costs and better financial accounting of the unused capacity for improved strategic planning and decision making (Sopariwala, 1997).

Benchmarking is used to determine your organization's performance relative to your competitors. According to Kenny (1996), some components of inpatient costs for an intensive care unit are: nursing and professionals' salaries, nutrition, housekeeping, laboratory, radiology, supplies, pharmacy, and administrative overhead. It is crucial to compare your organization to similar intensive care units based on patient type, illness severity, type facility, levels of available services, and step down unit access (Kenny, 1996).

Although hospitals are cutting personnel, there are still critical shortages of professionals, to include nurses. A recent American Hospital Association (AHA) survey of almost 500 acute care hospitals found 62 % of the respondents with personnel shortages from the year prior and another AHA survey found 126,000 nursing vacancies nationwide (Menninger, 2001). These shortages have led to calls for nursing ratio legislation in California (Tone, 1999). This contentious issue positions the clinical nurses who feel they are being overworked with too many patients, against hospital and nursing executives who feel current nursing level acuity tools are sufficient and put patient safety first instead of nurses (Tone, 1999).

In addition to the nurse to patient ratio, the percentages of RNs to LPNs and unlicensed personnel are also important. A recent study found that cutting costs by reducing RN FTEs is

"short-sighted and may harm patients" (Moore, Lynn, McMillen, Evans, 1999, p. 54.). In their study, Moore et al. found that the percentage of RNs of the total staff was the most consistent outcome predictor (Moore et al., 1999).

Military hospitals are also affected by nursing shortages, which effect recruiting and retention, especially since there is a federal allocation on the number of registered military nurses (P. Prather, personal communication, June 6, 2002). Attempts to increase the number of military nurses, which decreased in the 1990s along with the DOD downsizing, have been rebuffed, and military nurses have worked longer hours to make up for shortages (Price & Southerland, 1989). The military is able to utilize temporary nursing agencies, and there have been additional billets for civilian nurses provided, but their use is limited by MTF budgets. Other techniques used by the military to counter shortages include using more ancillary staff, cross training nurses, and to a slight extent, alternate nursing staffing plans.

To try and ensure that staff shortages don't affect patient safety the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) developed staffing effectiveness screening indicators instead of staff-to-patient ratios. These new standards, effective July 1, 2002, use a matrix of four clinical screening and human resource indicators selected by the organization, of which one of each is from a JCAHO list. Data from these lists is monitored by the organization and then reviewed along with the organization staffing during the onsite survey (JCAHO Perspectives, 2001).

According to Hart and Connors (1996), there are three corners of the resourcing decision model. They are: "(1) Does the proposal make good business sense? (2) Does it contribute to readiness? (3) Is it the right thing for the patient?" (Hart & Connors, 1996). Unlike a civilian CEO, the Military Treatment Facility commander has a fixed short-term budget and a short, two

to three year tenure, which can lead to short-term fiscal strategies. To determine the business sense corner, valid data is crucial and in the MTF this entails many different data systems. The readiness corner entails that of hospital personnel, but also those that the hospital supports. The right thing for the patient corner is crucial because the MTF must compete with civilian hospitals that could have more resources and more patients to maintain their skills (Hart & Connors, 1996).

The military is not exempt from reengineering, or Business Process Reengineering (BPR). The former head of the DoD Health Affairs, Dr. Stephen Joseph, stated that satisfied customers are the goal, but BPR, "a promotion of creative improvements and solutions", is the strategy to achieve it (Sunshine, 1997).

An example of a MTF BPR is that of the Naval Hospital Charleston, which reengineered into four multi-specialty, primary care group practices in Oct 1994. According to Etienne and Langenberg (1996), this BPR came about because of closure of Charleston's naval base and shipyard, DoD's managed care plan (TRICARE) implementation, discontinuation of their Family Practice Training Program, a hospital staff decrease from 120 to 55 physicians, and patients wondering who their doctor was. The authors feel their BPR was successful because they considered new and innovative ideas with a great amount of flexibility and constant reevaluation. They also recognize that each MTF is unique and a solid strategy is crucial to successful reengineering (Etienne & Langenberg, 1996).

In the DOD cost conscious environment, there is increased scrutiny placed on the amount of money the military spends on health care. The results of cost comparisons between military MTFs and inpatient care purchased at the civilian rate are mixed. Rogers at Wilford Hall Medical Center and Crandell at Bliss Army Community Hospital found their facilities were not

as cost effective at providing inpatient services as the local civilian facilities (Rogers, 1994) (Crandell, 1996). Stewart at Dewitt Army Community Hospital (DACH) in a study conducted just after Crandell, but three years after Rogers, found that DACH could provide care much cheaper than local contracted CHAMPUS providers. Stewart found that Dewitt could provide care cheaper than the local CHAMPUS providers – slightly less than $10 million versus just over $17 million. Some of this significant difference can be attributed to the much higher cost of professional services in the Washington, D.C. area, so it is crucial to conduct a local cost comparison before changing services (Stewart, 1997).

One recent reengineering of services was conducted at Moncrief Army Community Hospital. The Moncrief Emergency Room (ER) was closed September 30, 1998, after an in-depth analysis determined that it did not meet beneficiary needs and was extremely inefficient (Clark, 1997). In his Graduate Management Project entitled "Re-engineering Emergency Medical Services at Moncrief Army Community Hospital", then Captain Nolan Clark analyzed the Moncrief Emergency Medical Services and determined that one course of action, converting the ER to an Acute Care Clinic (ACC), open only when other primary care clinics were not, would result in an estimated annual net savings of $1.8 million. Results from a six-month data collection period were that almost 96% of Moncrief ER patients were classified as non-urgent. A different course of action, which was pursued, involved the ER closure and conversion to an ACC, extended primary care and troop medical clinic hours, and a Soldier Assessment Center. This course of action involved several additional steps to increase the access to primary care, but forecasted an estimated annual cost savings of $400,000 (Clark, 1997).

To ensure that the Military Healthcare System (MHS) was receiving clear guidance on a vital TRICARE component, utilization management (UM), the Assistant Secretary of Defense

for Health Affairs (ASD, HA) updated the previous four year old policy. Two of the key goals and objectives of DoD UM are ensuring health care services are provided in a cost effective manner with quality and timeliness optimized and to maximize Defense Health Plan (DHP) expenditures by using sound UM and Quality Management (QM) business decisions (Christopherson, 1998).

Purpose

The purpose of this project is to determine whether the Moncrief Army Community Hospital Special Care Unit (SCU) should be closed or reengineered to improve its efficiency and effectiveness. In addition, this project will discuss the financial and service impact of any changes. This project, by analyzing the following options: COA 1- Close the SCU and Transport Future Inpatients to the UCC and Local Hospitals, COA 2- Close the SCU and Integrate Future Inpatients into the Medical Surgical Ward, COA 3- Close the SCU and Transport Future Inpatients to the Dorn VA Medical Center, and COA 4- Maintain the SCU in its Current Configuration will help determine how Moncrief's SCU patients are seen in the future. The following variables will be discussed: workload, fixed costs, variable costs, TRICARE costs, and competency.

Methods and Procedures

This project will determine whether the Special Care Unit (SCU) should be closed or reengineered by evaluating four different courses of action (COA). Each COA will be thoroughly evaluated by using different Clinical Information Systems: the Composite Health Care System (CHCS), Executive Information/Decision Support (EI/DS) data sources: Military Health System (MHS) Management Analysis and Reporting Tool (M2), and the Managed Care Forecasting and Analysis System (MCFAS); and Decision Support Systems (DSS): Medical

Expense and Performance Reporting System (MEPRS) and the Expense Assignment System IV (EAS IV). Described below are the four COAs:

Course of Action 1: Close the Special Care Unit and Transport Future Inpatients to the Urgent Care Clinic and Local Civilian Hospitals

This COA involves closing the 4 bed Special Care Unit and transporting future patients either to the Moncrief Urgent Care Clinic (UCC) or local civilian hospitals. Two patients who require observation, monitoring, or both can be monitored simultaneously, in the UCC, with equipment that is currently available, and staff that only require minimal additional training. This COA is highly dependent on the UCC's patient workload, but has the potential to increase their workload, without an increased staffing requirement. Patients that exceed the UCC's capability will be transported by the Moncrief Emergency Medical Service (EMS) to the appropriate civilian hospital. For this COA to be acceptable the government TRICARE claims costs, for future SCU patients, plus the SCU's remaining share of the fixed costs, must be less than the Moncrief SCU total costs. Clinics and departments within Moncrief also must not transfer patients they can care for themselves, to the UCC.

Course of Action 2: Close the Special Care Unit and Integrate the Inpatients into the Medical Surgical Ward

This COA includes closing the Special Care Unit and transferring their Inpatients to the Medical Surgical Ward (MSW). Staffing levels and capabilities of the MSW would have to be increased and this COA also involves physically moving the SCU equipment and installing it on Moncrief's 8th floor. For this COA to be acceptable, its total cost must be less than maintaining the SCU in its current configuration. This COA will consider the current SCU operational costs, relocation costs, training costs, surgical inpatient flow, and patient care. Moncrief surgeons will

also be surveyed to determine the possible impact on surgical workload. Patients that exceed the MSW and UCC's capability will be transported by the Moncrief Emergency Medical Service (EMS) to the appropriate civilian hospital.

Course of Action 3: Close the Special Care Unit and Transport Future Inpatients to the Dorn VA Medical Center

This COA involves closing the Special Care Unit of the Special Care Unit and transferring their Inpatients to William Jennings Bryan Dorn Veterans Affairs (VA) Medical Center. This COA supports greater VA-DOD healthcare resource sharing, but would have to generate cost savings greater than the Moncrief SCU operational costs to be considered acceptable. It is also necessary that this COA does not have a negative impact on Moncrief's surgical workload and can be fully supported by the VA.

Course of Action 4: Maintain the Special Care Unit in its Current Configuration

To maintain the current SCU configuration requires that the other COAs are deemed unacceptable or are costlier to the government. One aspect that must be studied is the benefit of maintaining an SCU on Moncrief and its beneficiaries.

CHCS is the Department of Defense clinical information system. It is used for appointment making and tracking, reporting clinical results, and other order entry functions, such as lab test requests and pharmaceutical orders. The Ambulatory Data System (ADS) is an integrated medical information system that tracks and allows analysis of ambulatory data such as specific diagnoses and specific procedures of outpatients. ADS data is collected in the Standard Ambulatory Data Record (SADR) and CHCS data is collected in the Standard Inpatient Data Record (SIDR). Both the SIDR and the SADR are transmitted to the Patient Administration

Systems and Biostatistics Activity (PASBA), which provides information to the U.S. Medical Command (MEDCOM) (PASBA, 2001).

Executives within the Military Health System (MHS) rely on several EI/DS database sources. "The Medical Expense and Performance Reporting System (MEPRS) is a cost management system that accumulates and reports expenses, manpower, and workload performed by Department of Defense (DoD) fixed military medical and dental treatment facilities. It is the basis for establishing a uniform reporting methodology that provides consistent financial and operating performance data to assist managers who are responsible for health care delivery" (http://www.ampo.amedd.army.mil/meprs.html). CHCS data, via the Worldwide Workload Report (WWR), is one source that is used to populate the visit, admission, occupied bed day, and disposition workload components of MEPRS (Moore et al., 2000).

EAS IV is another automated information system, which "populates a data repository that provides standardized reporting of expense, personnel, and workload data by DoD medical and dental facilities at the facility level," (http://www.ampo.amedd.army.mil/eas.html). EAS IV facilitates the collection and computation of expense data and allocates distributes expenses to departments or specialties based on the workload they provide each other. It also produces MEPRS reports to allow executives cost data and visibility of the efficiency and effectives of each department (http://www.ampo.amedd.army.mil/eas.html).

Two reports used to manage nursing staffing levels are the Workload Management System for Nursing (WMSN) and Post-anesthesia Care System (PACS). WMSN is a management tool used to assess nursing personnel staffing based on patients' nursing care needs (http://www.ampo.amedd.army.mil/wmsn.html). Nurses classify patients according to an assessment of their nursing care needs, for the next 24-hour period, and determine the total

number of nursing care hours (NCH) a unit's patients will require. One of the problems with WMNS, though, is that it does not take into account the experience level of individual nurses. An experienced Registered Nurse (RN) would be more comfortable and capable than one just out of nursing school. PACS, which is not currently used at Moncrief, provides an acuity-based nurse staffing needs and a work process evaluation tool for the Post-anesthesia Care Unit (http://www.ampo.amedd.army.mil/WMSN/pacs.doc).

All of these previously described tools were used to analyze each of the four COAs of this project. SCU expense, workload, and personnel were calculated with EAS IV MEPRS generated data. The MEPRS cost of the SCU was broken down into fixed and variable costs. Avoidable fixed costs, or those that can be eliminated if the SCU is closed, will also be calculated. The product margin decision rule which states, "if a service is covering its full share of other costs (non-avoidable fixed costs and common costs), the organization is better off delivering the service than not at all, all other things being equal (there are no better alternatives)" (Zelman, 2000, p. 6) will also be used.

For each COA, the future Moncrief staffing impact was analyzed through utilization of the current nursing activity report. Moncrief currently is authorized four 66H8As, but there are only two assigned, who work in the SCU. If the Moncrief SCU were closed, one of these two positions would most likely be eliminated. MEDCOM is reluctant to staff non-ICU beds with ICU nurses. Besides their work in the SCU they also perform the after hours recovery mission in the PACU, so their loss would require a reorganization of the PACU and SCU. Although they are Intensive Care trained nurses, the Moncrief SCU nurses' proficiency has degraded since their arrival. The case-mix index (CMI), or resource intensity of care required, of Moncrief's SCU

patients are not high enough for the nurses to maintain their Intensive Care skills (C. Coombs, personal communication, September 28, 2001).

The data collection period (DCP) for this study covers a 12-month period from 1 March 2000 through 28 February 2001. Utilizing this 12-month period will ensure the data collected is a sufficient baseline for future SCU inpatient estimates and accounts for the seasonal inpatient fluctuations that are representative of the Fort Jackson beneficiary population. Utilizing slightly older data will also help ensure a more accurate accounting of the DCP claims paid.

Data analysis included the following patient categories: active duty (AD), active duty dependent (ADD), nonactive duty dependent (NADD) (retirees, retiree families, former spouses, and family members of deceased active-duty and deceased retirees), and other (OTH).

The retrospective costs of the Moncrief SCU inpatients, if they were sent to local civilian hospitals, was determined first by obtaining the DRGs for each inpatient during the DCP, and inputting that into M2 to receive the average cost of claims paid. This average cost of claims paid is for each of the DRGs in Moncrief's catchment area and for four DRGs in TRICARE Region 3 that were not found in Moncrief's catchment area during 2000 and 2001. The M2 data for network institutional care contains data from the Health Care Standard Records (HCSR) Institutional claims. The HCSR claims include all the institutional network charges paid by TMA, to the MCSC provider for the inpatient's episode of care. The total institutional network charge is then multiplied by 33% to account for the professional fees of the patients stay (P. English, personal communication, March 1, 2002) (E.J. Braswell, personal communication, March 12, 2002). These professional fees include: radiology, anesthesia, and physician consultation fees by professionals not employed by the utilized hospital. Although inpatient

claims can be submitted up to two years from the inpatient stay, the vast majority are submitted and paid within six months (E.J. Braswell, personal communication, March 12, 2002).

The second method, to determine the cost to the government if Moncrief did not have an SCU during the DCP, was calculated by a PGBA Healthcare Consultant. This method involved a manual review utilizing patient diagnosis and age from CHCS data. The data provided had several errors which prevented a grouping into surgical and medical DRGs, but hospital DRGs were calculated instead. Utilizing this method also includes an additional capital payment charge of at least $438 per inpatient day, and additional professional charges that are billed separately and are patient dependent. This data is not used due to the difficulty in grouping data, project time constraints, and data validity concerns.

The cost of active duty inpatients if they were sent to the Dorn VA is based on an interagency per diem rate for the type of bed required. This cost is calculated based on the number of inpatient bed days, by type, multiplied by the interagency rate. This COA also considers the stipulations of the DOD/VA resource sharing agreement between Moncrief and Dorn VA.

For TRICARE beneficiaries, the amount TMA pays is determined by the TRICARE plan the beneficiary utilizes. Total TMA amount paid could include a reduction for the patient cost-share, the patient's deductible, if it has not been met, and further by the patient's OHI, if they have it. In FY 2002, the amount TMA pays is reduced further if the patient is 65 or older and covered by TRICARE for Life (TFL), since TMA is then the second payer to MEDICARE. (http://www.tricare.osd.mil/ProviderHandbook/providerhandbook44.htm).

It is important to determine the patient's TRICARE category, because Tricare Prime patients are less likely to be covered under other health insurance (OHI) than TRICARE

Standard patients (R. Goodman, personal communication, October 12, 2001). TRICARE Prime ADDs also are no longer required to pay cost shares for inpatient care from the MCSC network hospitals, when the MTF care is not available. Also, when patients have OHI, TRICARE becomes a secondary, or in some cases, even a tertiary payer, which reduces the amount of money paid by TMA.

The CMI for each SCU inpatient is often used to determine their sickness level. The CMI is a "valuation or rating of physician services on the basis of relative physician resource inputs (work and other practice costs) to provide medical services" (http://www.tricare.osd.mil/ops/p2c11.pdf). Within M2, the CMI is actually calculated as the Relative Weight of the Procedure (RWP). The RWP is "A DoD measure of workload credit derived from biometrics dispositions weighted by CHAMPUS DRG weights" (http://www.eids.ha.osd.mil/ars-bridge/ddsearch/printout_sheet10.cfm). The medical records of the MONCRIEF SCU inpatient's, from the DCP, were also reviewed to determine if they met admission criteria to the SCU, which if they had not is inappropriate use of the SCU.

Redundant systems were used whenever possible and compared to determine the most valid data to assure validity and reliability. CHCS ad-hoc query data was compared to the SCU inpatient log maintained by the SCU staff. MEPRS and CHCS data was compared to determine data validity and reliability. Moncrief data quality experts were consulted to ensure the data validity, and data reliability was assured by comparing data from different systems. In order to ensure an equal cost comparison among the alternatives, the retrospective TRICARE inpatient costs were determined from the HCRS data, which accounted for patient cost sharing.

Utilizing current Health Insurance Portability and Accountability Act (HIPAA) guidelines protected patient confidentiality. Care was taken to ensure that patient registration

numbers could not be linked to their names or social security numbers. This also ensured that this project did not present any ethical dilemmas.

Due to the recent establishment of the TRICARE Plus program, the future number of SCU inpatients is more uncertain than ever. Since slightly more than seven-hundred TRICARE Plus beneficiaries now receive primary care at Moncrief, they could potentially also receive surgical care, if space is available at Moncrief. The Managed Care Forecasting and Analysis System (MCFAS), another DSS, was used to forecast the future number of Moncrief beneficiaries (http://www.eids.ha.osd.mil), but this data was not considered valid due to the uniqueness and difficulty of calculating Moncrief's soldiers in training population (P. English, personal communication, March 1, 2002).

The Results

Contrary to the original hypothesis and based on the seventy Moncrief SCU inpatients during the DCP studied, COA 4- maintaining the Special Care Unit in its current configuration, is the most cost effective COA (see Appendix C). The data suggests this COA would cost $338,964 resulting in a first year cost savings to Moncrief of approximately $12,612, than if COA 2 - close the Special Care Unit and integrate the inpatients into the Medical Surgical Ward (MSW) were utilized. The financial difference between the options is the nonrecurring charge to relocate the monitoring equipment from the 12th floor to the 8th floor displayed in Table 1. This nonrecurring charge includes a $561 in-house labor charge that would be avoided if the equipment were not relocated.

Table 1

SCU Relocation Expenses

SCU Relocation Cost Estimate Moving 4 bedside and 1 Central Monitor & Install Telemetry System			
	In House Labor	**Contract Labor**	**Additional Purchase**
Relocate 4 Bedside Monitors	12 hrs		
Relocate Central Monitor Station	4 hrs		
Install Monitor Cable		16 hrs	500' Cable
Install Telemetry Hardware & Cable		32 hrs	12 antennas 500' Cable
Costs	$561.92	$8,400.00	$3,650.00
Total Cost	**$12,611.92**		
In house labor rate	$35.12		
Contract labor rate	$175.00		
Telemetry antenna (ea)	$225.00		
Coaxial cable (ft)	$0.95		

Note: From C. Pierce, Moncrief Logistics.

COA 1- closing the Special Care Unit and transporting future SCU patients to the Urgent Care Clinic and local civilian hospitals would cost approximately $479,471, or $140,507 more than maintaining the SCU in its current configuration. This COA's cost is $6,994 more than the cost of COA 3, and utilizes current TRICARE contracts with civilian hospitals.

COA 3 - close the Special Care Unit and transport future inpatients to the Dorn VA Medical Center is the costliest COA, with a cost of $472,477. This COA was modified to just transferring future SCU active duty inpatients to Dorn VA, but transferring all others to local civilian hospitals. Patients that did not meet SCU criteria, but were kept there anyway were retrospectively calculated as sent to Dorn VA or local civilian hospitals. All other Moncrief SCU patients would be charged a much higher, but similar rate to that of a local civilian hospital.

The information in Annex C is a compilation of all the fixed and variable expenses, most of which come from MEPRS, but were verified against other sources whenever possible. Annex C also includes the TRICARE network hospital cost of care and the Dorn VA cost of care. The OHI coverage statistics and amount collected was from the Moncrief Uniform Billing Office (UBO) and is displayed in Table 2 and Figure 1 (Warren, 2002) (CHCS, 2002). Due to the increased benefit of the TRICARE For Life, it was assumed that half of those sixty-five and older will cancel their OHI, if they had it. During the DCP, $34,449 was collected from the sixty-five and older MACH SCU inpatients with OHI, but $17,225 would not have been collected if half of these same patients cancelled their OHI, and had been sent to TRICARE network hospitals.

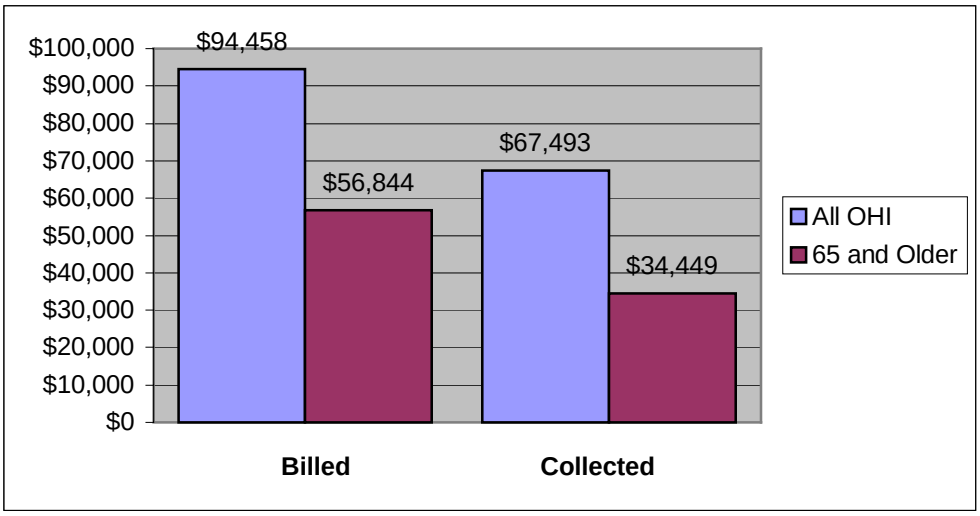
Table 2

Number and Percentage of Moncrief SCU Patients With OHI

Category	Number	Percentage
Number Of SCU Patients	70	-
Number Eligible for OHI	49	70%
Number with OHI	16	23%
Number 65 or older	8	11%
Number 65 or older with OHI	6	75%

Figure 1

OHI Money Billed and Collected From Moncrief SCU Patients By TFL Age Criteria



The fixed costs associated with the SCU were a significant factor in all four COA's. Even if the SCU were closed, fixed costs of approximately $85,505, displayed in Table 3, still remain (MEPRS, 2002). In addition to Moncrief's non-clinical fixed costs shared by the entire facility, one 66H8A is still required as the SCU Head Nurse and to support the PACU after-hours recovery mission. The composite salary of a 66H8A Military SCU Nurse is $84,130, is based on DA Military Composite Pay and Reimbursement Rates for FY 00 and 01, and is an unavoidable fixed cost.

Table 3

Moncrief Fixed Costs During The DCP

MEPRS Code	Category	Cost
EBAA	CMD Mgt Admin	$7,721
EBAE	Clinical Supp	$1,593
EBAA	Special Staff	$3,589
EBCA	IMD	$14,139
EBCB	RMD	$4,572
EBCC	Human Resources	$649
EBCD	Personnel Div	$4,986
EBCF	RETS	$1,268
EBFB	PHASE II	$626
EBFG	MED LIB	$1,331
EBFH	Other Training Supp	$1,940
EDAA	Plant Mgt	$1,392
EDCA	Maintenance Real Prop	$1,628
EDDA	Minor Const	$126
EDEA	Other Eng Supp	$325
EDJA	Communication	$866
EEAA	LOG supply	$3,575
EFAA	Housekeeping	$6,620
EGAA	Med Maintenance	$17,878
EBCH	Medical Company	$1,343
EBDA	C, DOM	$668
EBDB	C, Dept Surgery	$540
EBDF	C, Psych	$603
EBDG	C. Dept FH	$237
EBDI	C, Dept of Nursing	$3,810
EBFA	Education & Training	$1,645
EDKA	Other MTF Support	$1,342
DBAA	ANCILLARY	$55
DEAA	ANCILLARY	$134
DEBA	ANCILLARY	$304
Total Fixed Costs		**$85,505**

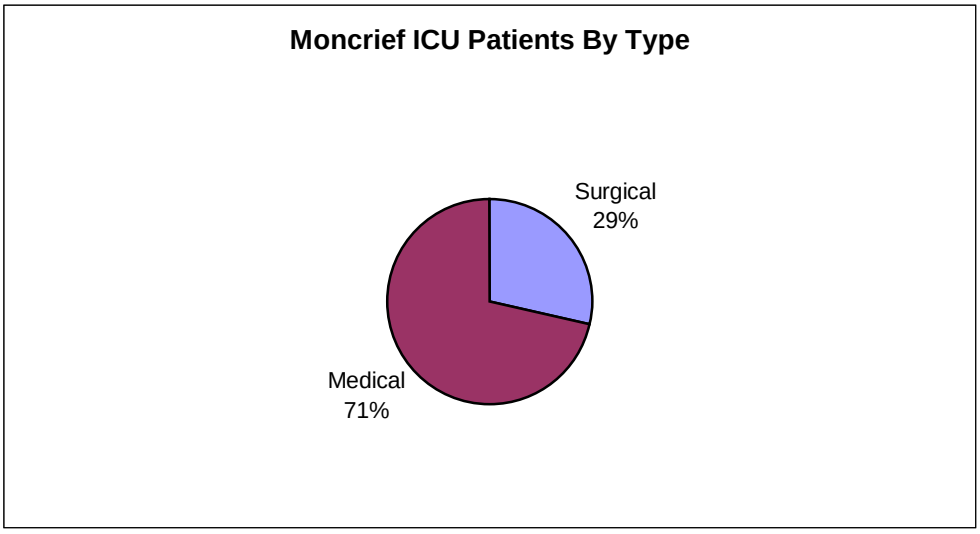
The variable costs of maintaining the Moncrief SCU were $219,568 and include SCU nurse salaries, medical and dental supplies, pharmacy supplies, other supplies, and linen and housekeeping expenses (see Appendix B). There is not a significant difference between the

variable costs of the SCU in its current location on the 12th floor and if it were relocated to the MSW on the 8th floor.

During the DCP there were seventy inpatients in the Moncrief SCU, with a RWP of 1.13 (M2, 2002). Figure 2 displays the mix of medical and surgical patients in the Moncrief SCU. The SCU was also closed, during the DCP, from May 2001 to the end of August 2001, due to staff shortages. The average inpatient stay was 1.98 days (CHCS, 2002). The SCU logbook identified seventy inpatients, but the CHCS ad hoc query identified only forty-two SCU inpatients. Discussions with Patient Administration Division and Quality Management personnel identified that this discrepancy was a result of Admission and Disposition clerks incorrectly transferring patients between wards (H. S. Brown, personal communication February 11, 2002). The unaccounted for patients were verified by patient registration number and the SCU log book as being legitimate SCU patients.

Figure 2

Moncrief SCU Patients By Type



By screening the inpatient medical records of the seventy Moncrief SCU inpatients it was identified that sixteen patients did not meet SCU admission criteria, but could have been seen in the Urgent Care Clinic, or on the MSW. Figure 3, 4, and 5 identify these patients by total, active duty, and all others, and which criteria they met (S. Manczuk & T. Malloy, personal communication, January 17, 2002). Of these sixteen patients, four who had a RWP of greater than 1 were assumed to have met the SCU criteria. Due to their acuity, these patients should not be MSW inpatients. The TRICARE network inpatient care cost to the government for the other twelve who did not meet SCU criteria would have been $15,183 if the SCU was not open, and the patients were cared for in the civilian network hospitals (M2, 2002).

Figure 3

Moncrief SCU Inpatients By Criteria

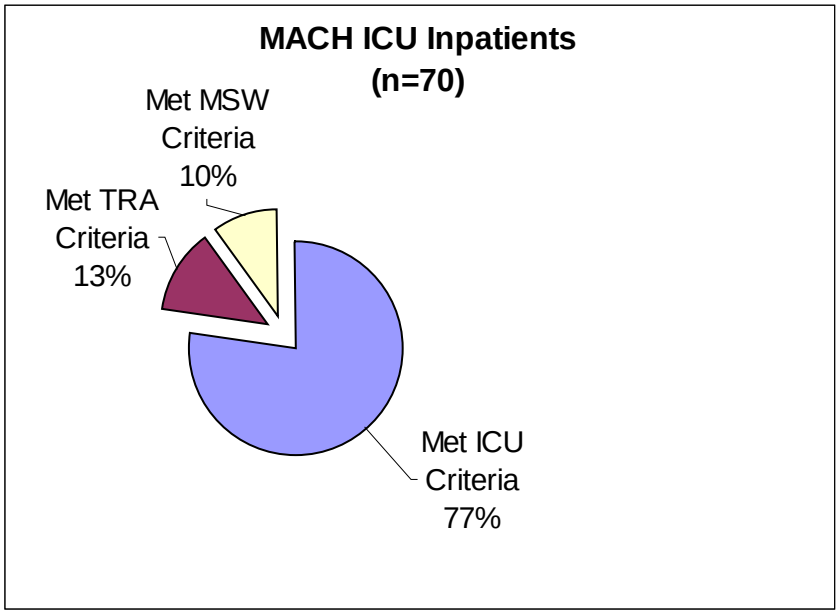


Figure 4

Moncrief Active Duty SCU Inpatients By Criteria

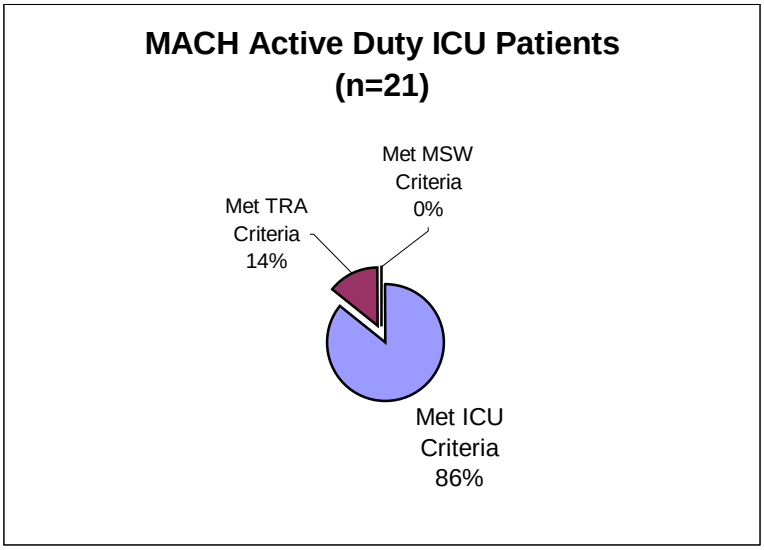
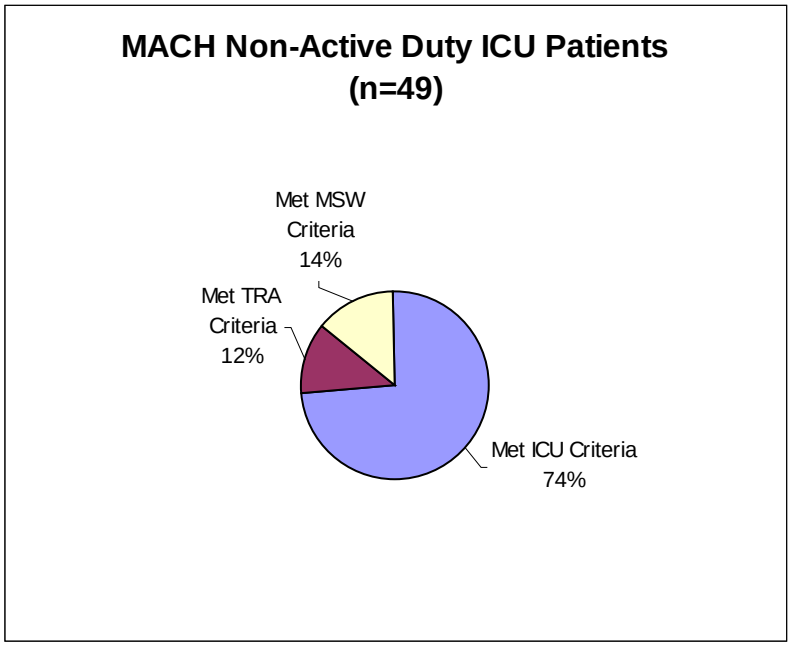


Figure 5

Moncrief Other Than Active Duty SCU Inpatients By Criteria



Course of Action 1: Close the Special Care Unit and Transport Future Inpatients to the Urgent Care Clinic and Local Civilian Hospitals

The future SCU patient TRICARE charges and Moncrief's fixed costs if the SCU was closed is greater than the cost of maintaining the SCU. Although a review of medical records suggests that there were sixteen patients that did not meet SCU criteria, this does not mean this would not happen the same way in the future. Physicians will admit patients to the location they feel is the appropriate level of care for the individual patient, and the retrospective cost of TRICARE claims if the SCU were closed is not discounted by these sixteen patients. If physician behavior were changed, the cost savings from keeping the twelve inpatients that did not meet the SCU criteria and had an RWP of one or less would have been only $15,183. The cost to the government of sending these seventy inpatients to local civilian hospitals is $259,567, during the DCP (see Appendix B).

Closing the SCU will also result in Moncrief's loss of $50,269 from OHI collections. The assumption is that half of those sixty-five and older will cancel their OHI due to the new changes with the NDAA of 2001. Those that will not cancel their OHI include beneficiaries with OHI provided from a previous employer and those that are reluctant to cancel their insurance because it provides coverage for other medical care not provided by MEDICARE or TRICARE (P. English, personal communication, March 1, 2002).

Course of Action 2: Close the Special Care Unit and Integrate the Inpatients into the Medical Surgical Ward

Integrating the SCU inpatients into the Medical Surgical Ward (MSW) would most likely not result in the reduction of the number of SCU personnel. Staffing levels and capabilities of

the MSW would have to be increased to safely care for SCU inpatients. This issue was discussed twice previously, but was not and is still not supported by Moncrief surgeons. The training involved to allow the MSW nurses to treat SCU patients would be fairly extensive and would require several weeks of training time, which would take away from patient care, and is not feasible at the current nursing staffing levels. Physically the MSW is four floors below the Moncrief operating rooms and PACU and transporting the patients there would require time and somebody to do it.

Course of Action 3: Close the Special Care Unit and Transport Future Inpatients to the Dorn VA Medical Center

This COA supports greater VA-DOD healthcare resource sharing, but does not generate cost savings to the government greater than the Moncrief SCU operational costs. The active duty cost of care at the Dorn VA would also come from Moncrief's Operations and Maintenance (O&M) budget, something that is not currently programmed into this year's or next year's budget. This COA would have a negative impact on Moncrief's surgical workload (A. Forgay, personal communication, February 11, 2002). It is also not guaranteed that this can be fully supported by the VA. Table 4 displays the Dorn VA Interagency rate Moncrief would have paid if the SCU were closed during the DCP.

Table 4

Dorn VA Cost for Moncrief Active Duty SCU Inpatients

	Cost per day	Days required	Cost by type
Surgical bed	$2,788	4	$11,152
Medical bed	$1,476	20	$29,520
Intermediate Care bed	$466	25	$11,650
Total AD cost			$52,322

Course of Action 4: Maintain the Special Care Unit in its Current Configuration

Maintain the current SCU configuration is the least expensive COA to the government. This COA is also strongly endorsed by the Moncrief surgeons (L. Shaw, personal communication, February 25, 2002).

Discussion

The annual savings to the government for TMA financed care will increase if the Moncrief SCU inpatient census increases or the cost of TRICARE reimbursed civilian hospital care increases greater than the Moncrief fixed and variable costs. The savings will decrease if the Moncrief SCU inpatient census decreases, the RWP decreases greatly, or the cost of TRICARE reimbursed civilian hospital care decreases. One situation when the government's reimbursed care cost could decrease is if some of the 90% of Moncrief's TRICARE Prime patients switch to the greater cost-sharing TRICARE Extra or TRICARE Standard plans. Changes brought about by the 2001 National Defense Authorization Act (NDAA) actually decrease the cost share requirements for TRICARE Prime patients who receive authorized inpatient care from TRICARE network hospitals (http://thomas.loc.gov/cgi-bin/bdquerytr/z?d106:HR04205:@@@L&summ2=m&).

Course of Action 1: Close the Special Care Unit and Transport Future Inpatients to the Urgent Care Clinic and Local Civilian Hospitals

The data suggests that this COA is the most expensive of the four options available to the government. It is unlikely that an emphasis on SCU inpatient criteria will make a significant difference in the admissions to the SCU, versus monitoring at the Urgent Care Clinic. Physicians will ensure the patient receives the appropriate care and not the least expensive care.

The inpatients that could be monitored in the UCC are also of low acuity and would be less expensive than those who met SCU criteria, if they were inpatients at local civilian hospitals.

One effect of closing the SCU is that leaders would have less visibility of their soldiers admitted to local civilian hospitals. Although there were only twenty-one AD SCU inpatients, of which eight were soldiers in training, the DCP did not include the "summer surge" period when the number of soldiers who are in Basic Training at Fort Jackson in training is much greater than the other months. The Moncrief staff would also have less visibility of its beneficiaries and the care they receive outside of the facility, which could have an adverse impact on continuity of care.

Course of Action 2: Close the Special Care Unit and Integrate the Inpatients into the Medical Surgical Ward

This COA includes a small non-recurring cost to relocate the SCU equipment to the MSW, but the bigger issue is that the MSW WMNS staffing levels are not adequate to care for MSW and the additional SCU patients. The training required for MSW nurses to allow them to function as SCU nurses would also require additional staffing or overtime costs to care for MSW patients, while training is conducted. The current MSW military nurses are also very inexperienced and Moncrief will continue to receive junior officers with similar if not less experience. A MSW cross-trained as an SCU nurse, would also lose their SCU skills quicker than an SCU nurse who received more extensive and formal training. An SCU nurse would also be required to establish and maintain the SCU proficiency of MSW nurses.

The surgical inpatient flow would also be negatively impacted if the SCU were not next to the PACU and down the hall from the ORs. Moncrief does not employ patient transporters so whoever did this task would be pulled away from their primary duty.

Course of Action 3: Close the Special Care Unit and Transport Future Inpatients to the Dorn VA Medical Center

This COA is the most expensive to the government and also presents some of the same problems with utilizing civilian hospitals, previously discussed. The AD care payments to the VA would also come from Moncrief O&M funds and this would be an unforecasted charge. This COA would also have a negative impact on Moncrief's surgical workload. Whether the VA can support this COA depends on the particular daily inpatient for the bed type required.

Course of Action 4: Maintain the Special Care Unit in its Current Configuration

This COA is the least costly to the government and allows for the greatest visibility of Moncrief's SCU inpatients, but is not without risk. The DOS surgeons are very supportive of this COA, and the more intense surgeries they perform the greater the cost savings to the government from this COA. The risk of this COA is the limited number of low acuity cases does not provide adequate sustainment for the SCU nurses. The enrollment of slightly more than seven-hundred TRICARE Plus patients should also increase the number and intensity of SCU inpatients, since TRICARE Plus beneficiaries are authorized space available care at Moncrief and we have excess surgical capacity.

One problem with this COA is the upcoming retirement of the Moncrief SCU Head Nurse. This 66H8A vacancy, without a forecasted replacement, means the remaining military ICU nurse shares the on call coverage to the PACU and SCU with the two civilian SCU nurses. Moncrief will also have to hire a civilian ICU licensed nurse to fully staff the SCU and provide the current level of support to the PACU. Locating and hiring an ICU licensed nurse will also be difficult with the nationwide and local ICU nurse shortages. Moncrief also has limited funds available to attract a qualified nurse. Sending a military MSW nurse to the sixteen-week ICU

nurse course is unlikely to be approved by Personnel Command, since most military ICU nurses are assigned to hospitals with a full-fledged intensive care unit, not a SCU.

Conclusions and Recommendations

As previously stated, the purpose of this project was to determine whether the Special Care Unit (SCU) of the Moncrief Special Care Unit should be closed or reengineered to improve its efficiency and effectiveness. A common hypothesis shared by the author and many others at Moncrief was that the SCU was inefficient and much costlier than closing it and receiving the SCU care from the TRICARE network hospitals. After a thorough analysis, the data strongly suggest that this hypothesis is false. Maintaining the SCU, in its current configuration, cost $338,964 during the data collection period. Closing it and receiving the care from TRICARE network hospitals would have cost $479,471. This difference of $140,507 is a very significant cost savings to the government.

The SCU efficiency and cost advantage could be increased if Moncrief surgeons perform more surgeries, with a higher acuity, that require more SCU inpatient bed days. The enrollment of more than seven hundred older patients into Moncrief's TRICARE Plus program should also generate more SCU patients. Ensuring that the SCU remains open, especially during the summer surge is a staffing challenge that must be resolved to maintain and increase the SCU efficiency. The pending loss of the military SCU head nurse, without a military ICU nurse replacement, will require a long-term solution. The financial data in this project suggests closing the SCU is not the appropriate solution.

Recommendations are that COA 4 - Maintain the Special Care Unit in its Current Configuration, is the best COA and the one that should be pursued. COA 3- Close the Special Care Unit and Transport Future Inpatients to the Dorn VA Medical Center, is an acceptable

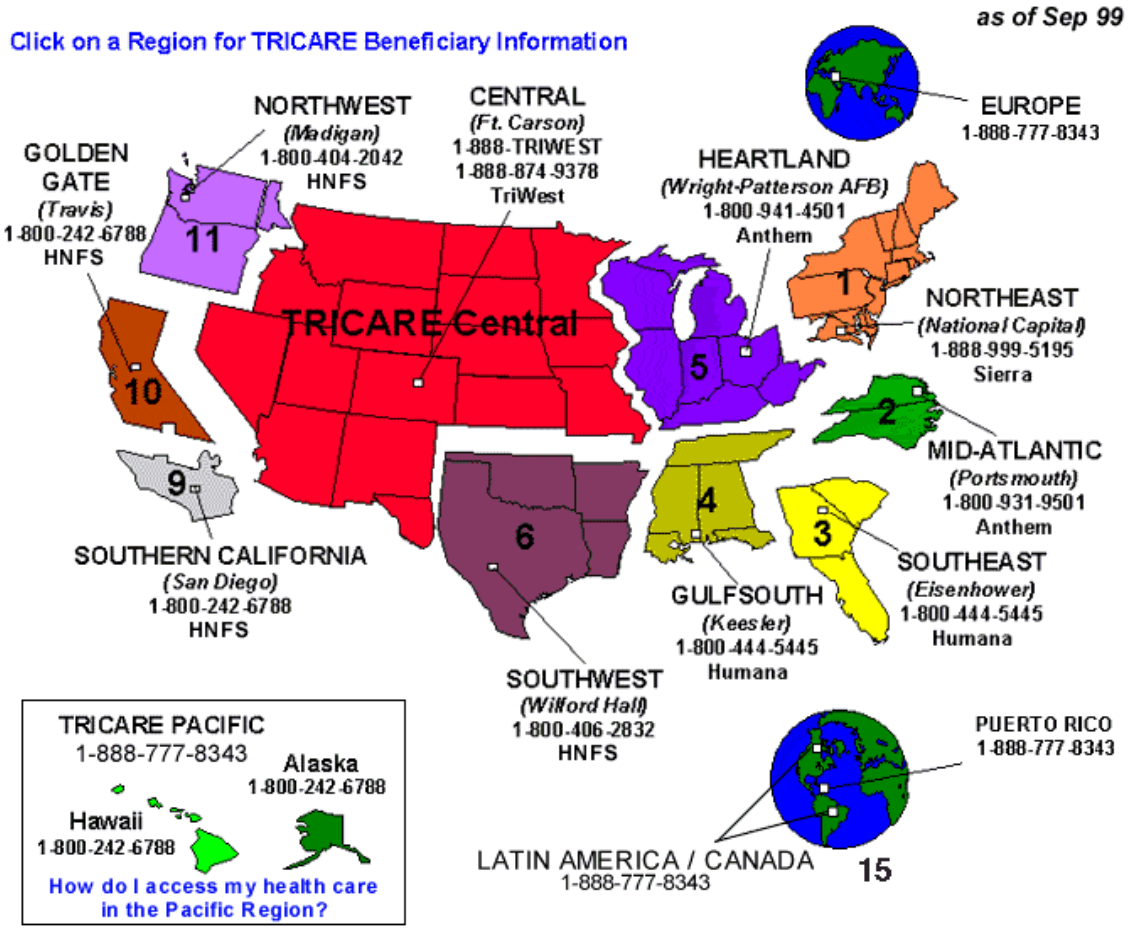
COA, but it would cost $133,513 more than COA 4 and would require unforecasted payments from Moncrief O&M funds. COA 1- Close the Special Care Unit and Transport Future Inpatients to the Urgent Care Clinic and Local Civilian Hospitals is acceptable, but is extremely costly and provides less visibility of the Moncrief beneficiary's health care. COA 2- Close the Special Care Unit and Integrate the Inpatients into the Medical Surgical Ward, is an unacceptable option because it does not save any money, since the SCU personnel would still be required because training MSW nurses in house to provide SCU nursing care could jeopardize the safety of the patients. Relocating the SCU four floors below would also decrease the efficiency of patient flow to the SCU from the operating rooms and the PACU.

Appendix A: List of Abbreviations and Acronyms

ACC- Acute Care Clinic
AD- Active Duty
ADD- Active Duty Dependent
ADS- Ambulatory Data System
AHA- American Hospital Association
AIT- Advanced Individual Training
AMEDD- Army Medical Department
ARS Bridge- All Region Server Bridge
ASAM- Army Staffing Assessment Model
ASD- Assistant Secretary of Defense
BCT- Basic Combat Training
BPR- Business Process Reengineering
BSC- Balanced Scorecard
CHCS- Composite Health Care System
CMAC- CHAMPUS Maximum Allowable Charge
CMI- Case Mix Index
COA- Course of Action
CPT- Current Procedural Terminology
CRIS- CHAMPUS Regional Intermediary System
DA- Department of the Army
DCH- Duke Children's Hospital
DCN- Deputy Commander for Nursing
DCP- Data Collection Period
DDEAMC- Dwight D. Eisenhower Medical Center
DHP- Defense Health Program
DOD- Department of Defense
DRG- Diagnosis Related Group
DSS- Decision Support System
EAS IV- Expense Assignment System IV
EI/DS- Executive Information/Decision Support
EMS- Emergency Medical Service
ER- Emergency Room
FTE- Full Time Equivalent
FY- Fiscal Year
GS- General Schedule
HA- Health Affairs
HCFA- Health Care Financing Administration
HEDIS- Health Employer Data Information Set
HIPAA- Health Insurance Portability and Accountability Act
SCU- Special Care Unit
JCAHO- Joint Commission on Accreditation of Healthcare Organizations
M2- Military Health System (MHS) Management Analysis and Reporting Tool
MCFAS- Managed Care Forecasting and Analysis System
MCSC- Managed Care Support Contractor

MEDCOM- U.S. Medical Command
MEPRS- Medical Expense and Performance Reporting System
MSW- Medical Surgical Ward
MTF- Medical Treatment Facility
NADD- Nonactive Duty Dependent
NCH- Nursing Care Hours
OTH- Other
PACS- Post-anesthesia Care System
PACU- Post Anesthesia Care Unit
PGBA- Palmetto Government Benefits Administrators
PASBA- Patient Administration Systems and Biostatistics Activity
QM- Quality Management
RN- Registered Nurse
RVU- Relative Value Unit
RWP- Relative Weight of Procedure
SADR- Standard Ambulatory Data Record
SDS- Same Day Surgery
SERMC- Southeastern Regional Medical Command
SIDR- Standard Inpatient Data Record
SOP- Standard Operating Procedure
TDA- Table of Distribution and Allowances
TMA- TRICARE Management Activity
TMAC- TRICARE Maximum Allowable Charge
UBO- Uniform Billing Office
UCC- Urgent Care Clinic
UM- Utilization Management
VA- Department of Veterans Affairs
WMSN- Workload Management System for Nursing

Appendix B: Map of the TRICARE Regions



http://www.tricare.osd.mil/tricare/trimap2.html

Appendix C: Fixed and Variable Expenses and Cost of Network Care

	COA 1 Close SCU	COA 2 8E	COA 3 Close/VA	COA 4 Keep SCU
MEPRS Fixed Expenses	$85,505	$85,505	$85,505	$85,505
1 Military SCU Nurse	$84,130	$84,130	$84,130	$84,130
Total Fixed Expenses	$169,635	$169,635	$169,635	$169,635
Total SCU Direct Expenses (Variable)		**$219,598**		**$219,598**
1 Military Nurse*		$84,130		$84,130
2 Civilian Nurses**		$112,348		$112,348
Med/Dent Supplies		$17,580		$17,580
Pharmacy Supplies		$229		$229
Other Supplies		$5,310		$5,310
Housekeeping		$310		$310
Linen		$203		$203
Nonrecurring Relocation expense		$12,612		
Third Party OHI***	**$50,269**	**$50,269**	**$50,269**	**$50,269**
Network Cost of Care For 49 Inpatients			**$200,251**	
Network Cost of Care For All 70 Inpatients	**$259,567**			
VA cost for AD: Medical			**$29,520**	
VA cost for AD: Surgical			**$11,152**	
VA cost for AD: Intermediate Care			**$11,650**	
	$479,471	**$351,576**	**$472,477**	**$338,964**

* Military SCU Nurse salary is based on DA Military Composite Pay and Reimbursement Rates for FY 00 and 01

** Civilian SCU Nurse salary is based on actual costs for CY 00 and 01 from MACH HR.

*** OHI based on the assumption that half of those 65 and older with OHI drop their coverage due to TFL coverage.

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